

BROOKHAVEN NATIONAL LABORATORY Safety & Health Services Division INDUSTRIAL HYGIENE GROUP Standard Operating Procedure: Program Procedure	NUMBER IH62100
	REVISION FINAL rev1
Subject: BNL Ventilation Monitoring Program: Service Delivery by BNL Organizations	DATE 02/03/06
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1.0 Purpose & Scope

Purpose: This procedure describes the specific role(s) of each BNL organization in the BNL Ventilation Monitoring program. This document assists management in developing, implementing and coordinating an effective Exhaust Ventilation program that, as a minimum, complies with OSHA 29CFR1910.94, 29CFR1910 subpart Z, and DOE Order 440.1A. The BNL monitoring program comprises three main areas:

- HEPA filter surveillance testing on hazardous emission sources,
- Local Exhaust Ventilation system testing on controls for hazardous substances in the work area, and
- Heating, ventilation and air conditioning (HVAC) complaint investigations.

The BNL Exhaust Ventilation program is implemented through a matrix of several BNL organizations. Members of the following organizations perform one or more roles in the BNL Ventilation Monitoring program:

- Office of Training and Qualification,
- Plant Engineering Division,
- Radiological Control Division- Facility Support Group,
- Safety and Health Services Division- Industrial Hygiene Group, and
- Safety and Health Services Division- Safety Engineering Group.

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2.0 Responsibilities

- 2.1 Each organization that has a role in the BNL Exhaust Ventilation Program is responsible to:
 - 2.1.1 Conduct their operations in accordance with the BNL standards, OSHA regulations and DOE orders,
 - 2.1.2 Qualify their employees to conduct their assigned tasks (as appropriate),
 - 2.1.3 Develop and Maintain procedures and other records (as appropriate),

3.0 Definitions

none

4.0 Prerequisites

none

5.0 Precautions

none

6.0 Procedure (Program Elements)

BNL Program Overview: The major roles of each organization assisting in the delivery of services within the BNL Exhaust Ventilation Program are:

- 6.1 SHSD Industrial Hygiene Group
 - 6.1.1 Serve as *Exhaust Ventilation* program administrator & SBMS Subject Matter Expert.
 - 6.1.2 Conduct periodic regulatory driver reviews and track BNL's documentation for compliance.
 - 6.1.3 Perform periodic BNL Program *Self Assessments*.
 - 6.1.4 Prepare *Standard Operating Procedures* for IH Group ventilation testing operations.
 - 6.1.5 Assist RCD in preparation of *Standard Operating Procedures* for RCD exhaust ventilation testing operations.
 - 6.1.6 Qualify SHSD employees in procedures for conducting ventilation testing and design review.

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- 6.1.7 Assist RCD in performing initial evaluations of Local Exhaust Ventilation system for effectiveness and establishing operating parameters.
- 6.1.8 Conduct or assist RCD in performing HVAC employee complaint evaluations.
- 6.1.9 Approve initial evaluations of existing Local Exhaust Ventilation system for effectiveness and establishing operating parameters for periodic testing.
- 6.1.10 Ensure the Calibration and maintenance of ventilation testing equipment.
- 6.1.11 Conduct HEPA Filter Surveillance testing
- 6.1.12 Maintain a HEPA Filter Surveillance Testing Record database.
- 6.1.13 Review training curriculum material.
- 6.1.14 Perform Project Design Reviews for exhaust ventilation.

- 6.2 SHSD Safety Engineering Group
 - 6.2.1 Administer the Project Design Review program. Forward projects with ventilation concerns to the appropriate ESH professional(s) for review.

- 6.3 Radiological Control Division
 - 6.3.1 Conduct routine Exhaust Ventilation testing on laboratory hoods.
 - 6.3.2 Conduct routine Exhaust Ventilation testing on local exhaust systems for compliance with operating parameters.
 - 6.3.3 Initiate evaluations of Local Exhaust Ventilation system for effectiveness and establishing operating parameters.
 - 6.3.4 Assist SHSD in conducting HEPA Filter Surveillance testing.
 - 6.3.5 Conduct HVAC employee complaint evaluations.
 - 6.3.6 Qualify RCD employees in procedures for conducting ventilation testing and design review.
 - 6.3.7 Prepare *Standard Operating Procedures* for RCD Facility Support Group Operations.
 - 6.3.8 Maintain routine lab hood and local exhaust system routine testing records.

- 6.4 Training and Qualification Program Office
 - 6.4.1 Maintain records of tester qualification training, as submitted by RCD and SHSD.
 - 6.4.2 Deliver site wide training to staff on exhaust ventilation as part of laboratory standard, HazCom, and radiological training.

- 6.5 Plant Engineering
 - 6.5.1 Design, install, and maintain HVAC systems and exhaust ventilation engineering control systems.
 - 6.5.2 Maintain records of maintenance on exhaust systems.
 - 6.5.3 Ensure that *Acceptance Tests* on HEPA, hoods and local exhaust ventilation systems are conducted and passed at the time of construction.

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- 6.5.4 Consult with SHSD and/or RCD on adequacy of design of exhaust ventilation for correction of hazardous atmospheres.
- 6.5.5 Place testing portals (holes for duct traverse testing) in exhaust ventilation equipment (for use in periodic validation testing) as per recommendations of SHSD or RCD.

7.0 Implementation & Training

- 7.1 Each organization that has a role in the BNL Exhaust Ventilation Program is responsible to:
 - 7.1.1 Qualify their employees to conduct their assigned tasks (as appropriate),
 - 7.1.2 Develop & maintain documentation of procedures and other records (as appropriate).

8.0 References

- 8.1 *29CFR1910.94 OSHA Occupational Exhaust Ventilation Standard*
- 8.2 *DOE Order 440.1A*

9.0 Attachments

None

10.0 Documentation

Document Development and Revision Control Tracking		
Prepared By: <i>(signature/date on file)</i> R. Selvey 11/17/02 SHSD Industrial Hygiene Group Leader	Reviewed By / Date: <i>(email concurrence/date on file)</i> T. Monahan 11/20/02 SHSD Safety Engineering Group Leader	Approved By / Date: <i>(signature/date on file)</i> R. Selvey 11/22/02 SHSD Industrial Hygiene Group Leader
Preparation Team <i>(signature/date on file)</i> J. Peters 11/22/02 SHSD Industrial Hygiene Group	Preparation Team <i>(signature/date on file)</i> C. Weilandics 11/22/02 RCD Facility Support Group	

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ESH Coordinator/ Date: <i>none</i>	Work Coordinator/ Date: <i>none</i>	SHSD Manager / Date <i>none</i>
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Rev0: Organization Concurrence		
Department/Division	Name/Date	Title
Safety and Health Services Division	(signature on file) Otto White, Jr. /01/06/03	Division Manager
Radiological Control Division	(Email concurrence on file) Richard Lykins for Steve Layendecker / 12/23/02	Division Manager
Office of Training and Qualification	(Email concurrence on file) Beth Schwaner / 11/26/02	Office Manager
Plant Engineering Division	(email concurrence on file) Edward Murphy /12/16/02	Division Manager

Revision Log		
Purpose: <input type="checkbox"/> Temporary Change <input type="checkbox"/> Change in Scope <input checked="" type="checkbox"/> Periodic review <input type="checkbox"/> Clarify/enhance procedural controls Changed resulting from: <input type="checkbox"/> Environmental impacts <input type="checkbox"/> Federal, State and/or Local requirements <input type="checkbox"/> Corrective/preventive actions to non-conformances <input checked="" type="checkbox"/> none of the above Section/page and Description of change: Triennial Review. Changed the format of section 6 but no significant text changes were required. Minor text change in Step 6.1.9 for clarity in the intended scope of the evaluations.		
(signature/date on file) R. Selvey 02/03/06 SME Reviewer/Date:	SME Reviewer/Date:	SME Reviewer/Date: